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Filing Date: June 23, 2003

**REMARKS**

Claims 1-12 are pending. Amendment to and cancellation of the claims does not affect inventorship.

**§112, ¶ 2 Rejections**

Claims 1-10 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It was asserted that claim 1 is vague and indefinite in that the degree of "stress tolerance" intended cannot be readily assessed. Applicants respectfully disagree. Claim 1, as amended, is directed to a method of treating a target plant to confer stress tolerance "wherein said stress tolerance is chosen from the group consisting of thermal tolerance and drought tolerance." Thus, the degree of "stress tolerance" can be readily assessed.

It was also asserted that claim 10 is confusing in that a "seedling" is not properly a "part" of a plant. Applicants respectfully disagree. As amended, claim 10 has been amended to be directed to a "method of treating a plant according to claim 1 wherein said plant is a seedling. Thus, claim 10 is not confusing. Please note that Applicants respectfully reserve their right to address the issue of whether a "seedling" is properly a "part" of a plant at a later time in the prosecution of this application or any related application.

Thus, claims 1-10 particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Reconsideration and withdrawal of the rejections are respectfully requested.

**§112, ¶ 1 Rejections**

**Curvularia Isolate**

Claims 1-10 were rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. More specifically, it was asserted that the claims are broadly drawn to the use of a *Curvularia* strain to treat any plant to confer any stress tolerance by inoculating with *Curvularia* while the specification only provides guidance for the use of one isolate (*Curvularia* isolate 1A15.1). Applicant respectfully disagrees.

Claim 1, as amended, is directed to a method of treating a target plant to confer stress tolerance comprising "inoculating said plant or a part of said plant with a culture of *Curvularia* isolate 1A15.1." Thus, claims 1-10 contain subject matter that is described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed. Reconsideration and withdrawal of the rejection are respectfully requested.

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Deposit of Biological Material

Claims 1-10 were also rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. More specifically, it was asserted that it is not clear if the written description is sufficiently repeatable to avoid the need for a deposit. It is further suggested that it may be averred that deposited material has been accepted for deposit under the Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the purpose of Patent Procedure ("Budapest Treaty") and that all restrictions on the availability to the public of the material so deposited will be irrevocably removed upon the granting of a patent.

Applicants declare by undersigned counsel that *Curvularia* isolate 1A15.1 has now been appropriately deposited in a currently approved depository as proscribed by 37 C.F.R. §§ 1.801-1.809. More specifically, *Curvularia* isolate 1A15.1 was deposited at the Agricultural Research Service Culture Collection (National Center for Agricultural Utilization Research, 1815 North University Street, Peoria, IL) in accordance with the terms of the Budapest Treaty on March 28, 2006 and assigned accession no. NRRL 30910. Applicants further declare that any restriction on availability of the deposit to the public will be removed upon granting of a patent on this subject pending application, and that the deposited material will be available at all times to one determined by the Commissioner to be entitled to such access thereto under 37 C.F.R. §1.14 and 35 U.S.C. §122. Applicants further state that the deposited material will be maintained with all the care necessary to keep it viable and uncontaminated for a period of at least five years after the most recent request for the furnishing of a sample of the deposited microorganism, and in any case, for a period of at least thirty (30) years after the date of deposit for the enforceable life of the patent, which period is longer.

In addition, the present specification has been amended to identify the location, date and accession number, and to provide for the taxonomic description of the strain of *Curvularia* for which this subject application derives. A substitute specification, in both marked-up and clean copy format, accompanies this Amendment.

Thus, claims 1-10 contain subject matter that is described in such a way as to enable one skilled in the art to make and/or use the invention. Reconsideration and withdrawal of the rejection are respectfully requested.

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**§102(b) Rejections**

Claims 1-5 and 10 were rejected under 35 U.S.C. §102(b) as being anticipated by Hodges *et al.* ("Hodges"). Applicants respectfully disagree.

Claim 1 is directed to a "method of treating a target plant to confer stress tolerance comprising inoculating said plant or a part of said plant with a culture of *Curvularia* isolate 1A15.1, wherein said stress tolerance is chosen from the group consisting of thermal tolerance and drought tolerance."

It is respectfully submitted that Hodges does not teach or suggest the invention of claim 1. Instead, Hodges simply examines the detrimental effects of inoculating the roots of *Agrostis palustris* with *Curvularia lunata*. Hodges discloses that all isolates of *C. lunata* "decreased both the shoot and root growth of root-inoculated plants." See Hodges, pg. 639. That is, *Curvularia lunata* impairs the growth of *Agrostis palustris*. Nowhere does Hodges teach or suggest treating a target plant to confer stress tolerance, and in fact, Hodges discloses harming the target plant. Further, Hodges doesn't teach or suggest inoculating a plant or a part of a plant with a culture of *Curvularia* isolate 1A15.1. Hodges, therefore, fails to teach or suggest the invention of claim 1. Reconsideration and withdrawal of the rejection are respectfully requested.

Because claims 2-10 depend directly or indirectly from claim 1 and incorporate all of the limitations of claim 1, the above argument obviates the basis of the rejections of claims 2-10. Thus, claims 2-10 are not anticipated by Hodges. Reconsideration and withdrawal of the rejections are respectfully requested.

**§102(a) Rejections**

Claims 1-5 and 10 were rejected under 35 U.S.C. §102(a) as being anticipated by de Luna *et al.* ("de Luna"). Applicants respectfully disagree.

As discussed above, claim 1 is directed to a "method of treating a target plant to confer stress tolerance comprising inoculating said plant or a part of said plant with a culture of *Curvularia* isolate 1A15.1, wherein said stress tolerance is chosen from the group consisting of thermal tolerance and drought tolerance."

It is respectfully submitted that de Luna does not teach or suggest the invention of claim 1. Instead, de Luna simply discloses an examination of whether certain rice cultivars are resistant to detrimental effects of certain isolates of either *Curvularia tuberculata* or *Curvularia oryzae*, for the larger purpose of using at least one of the *Curvularia* isolates as a pesticide against sedge weeds. Nowhere does de Luna teach or suggest treating a target plant to confer stress tolerance, and in fact, de Luna discloses that certain cultivars of rice are injured by certain of the *Curvularia* isolates discussed in the de Luna article. Further, de Luna doesn't teach or suggest inoculating a plant or a part of a plant with a culture of *Curvularia* isolate 1A15.1. De Luna, therefore, fails to teach or suggest the invention of claim 1. Reconsideration and withdrawal of the rejections are respectfully requested.

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Because claims 2-10 depend directly or indirectly from claim 1 and incorporate all of the limitations of claim 1, the above argument obviates the basis of the rejections of claims 2-10. Thus, claims 2-10 are not anticipated by de Luna. Reconsideration and withdrawal of the rejections are respectfully requested.

**§103(a) Rejections**

Claims 1-10 were rejected under 35 U.S.C. §102(b) as being unpatentable over de Luna taken with Azevedo *et al.* ("Azevedo"). Applicants respectfully disagree.

As discussed above, claim 1 is directed to a "method of treating a target plant to confer stress tolerance comprising inoculating said plant or a part of said plant with a culture of *Curvularia* isolate 1A15.1, wherein said stress tolerance is chosen from the group consisting of thermal tolerance and drought tolerance."

As also discussed above, de Luna does not teach or suggest the invention of claim 1. That is, de Luna does not teach or suggest treating a target plant to confer stress tolerance, and in fact, de Luna discloses that certain cultivars of rice are injured by certain of the *Curvularia* isolates discussed in the de Luna article. Further, de Luna doesn't teach or suggest inoculating a plant or a part of a plant with a culture of *Curvularia* isolate 1A15.1. De Luna, therefore, fails to teach or suggest the invention of claim 1.

Azevedo fails to remedy the deficiencies of de Luna. Azevedo discloses that *Curvularia* are endophytic fungi of the Amazon. To the extent that the article suggests the inoculation of plants with *Curvularia*, the suggestion is made in the context of insect and pest control. Nowhere does de Luna teach or suggest "treating a target plant to confer stress tolerance comprising inoculating said plant or a part of said plant with a culture of *Curvularia* isolate 1A15.1, wherein said stress tolerance is chosen from the group consisting of thermal tolerance and drought tolerance." Azevedo, therefore, fails to teach or suggest the invention of claim 1.

Thus, neither de Luna nor Azevedo, alone or in combination, teach or suggest treating a target plant to confer stress tolerance comprising inoculating said plant or a part of said plant with a culture of *Curvularia* isolate 1A15.1, wherein said stress tolerance is chosen from the group consisting of thermal tolerance and drought tolerance. Reconsideration and withdrawal of the rejections are respectfully requested.

Because claims 2-10 depend directly or indirectly from claim 1 and incorporate all of the limitations of claim 1, the above argument obviates the basis of the rejections of claims 2-10. Thus, claims 2-10 are not anticipated by de Luna. Reconsideration and withdrawal of the rejections are respectfully requested.

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**CONCLUSION**

Thus, claims 1-10 are in condition for allowance. Reconsideration and a Notice of Allowance are respectfully requested.

This response is being filed on or before August 3, 2006, making this a timely response. Applicants believe no additional fees are due. However, the Commissioner is authorized to charge fees which may be required, including extension fees, or credit any overpayment, to Deposit Account No. 50-2319 (File No. 470425-00018 ; Docket No. A-72343/RMS/SDS).

Please direct any calls in connection with this application to the undersigned at (415) 781-1989.

Respectfully submitted,  
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